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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,439	12/31/2001	Gary M. Gunderson	11532-025001	4828

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT PAPER NUMBER

2872

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/037,439

Applicant(s)

GUNDERSON, GARY M.

Examiner

Joshua L Pritchett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-16 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Response to Amendment*

The proposed reply filed on September 10, 2003 has not been entered because it is unsigned.

Since the above mentioned reply appears to be *bona fide*, applicant is given a TIME PERIOD of **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME LIMIT MAY BE GRANTED UNDER 37 CFR 1.136(a).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 703-305-7917. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JLP



DREW DUNN  
SUPERVISORY PATENT EXAMINER

### DETAILED ACTION

This action is in response to Amendment A filed September 10, 2003. Claims 4, 12, 14 and 17 have been amended and claims 19-20 have been added as requested by the applicant.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-11 and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Stewart (US 5,812,310).

Regarding claim 1, Stewart discloses an apparatus with a carrier plate (16) a first plurality of camming elements (66) each of the camming elements including a downwardly directed camming surface. Stewart further discloses a semi-kinematic mount (62) connecting the first plurality of camming elements to a surface of the carrier plate. Stewart further discloses a second plurality of camming elements (72), each of the camming elements including an upwardly directed camming surface slidably connected to a corresponding one of the downward directed camming surfaces (col. 4 lines 26-28). Stewart further discloses an actuator plate (70) coupled to the second plurality of camming elements such that the upwardly directed camming

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surfaces move in relation to the downward directed camming surfaces in response to the actuator plate moving along a first axis, such that movement of the actuator plate along the first axis translates into movement of the carrier plate along a second axis orthogonal to the first axis (col. 4 lines 39-41).

Regarding claim 2, Stewart discloses an actuator operative to move the actuator plate along the first axis (col. 4 lines 53-56).

Regarding claim 4, Stewart further discloses a base (30) and another semi-kinematic mount (84) connecting the plurality of camming elements to a surface of the base.

Regarding claim 5, Stewart discloses the actuator plate including a plurality of apertures adapted to accommodate the second plurality of camming elements (Fig. 2, 72). Stewart shows the camming elements being part of the actuator plate and the camming elements (72) having holes in them.

Regarding claim 6, Stewart discloses each of the downward directed camming surfaces is inclined at an angle of approximately 18.5 degrees from a plane of the surface of the carrier plate (col. 4 lines 16-18).

Regarding claim 7, Stewart discloses the first axis is either the X or Y-axis and the second axis is the Z-axis (col. 4 lines 29-41).

Regarding claim 8, Stewart discloses each of the actuator plate and the carrier plate including an optical aperture (86 and 96, respectively).

Regarding claim 9, Stewart further discloses a plurality of linear slides (20, 82), each of the linear slides interconnected between adjacent downwardly directed camming surfaces and upwardly directed camming surfaces (col. 4 lines 30-31).

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Regarding claim 10, Stewart discloses the second plurality of camming elements are slidably mounted to the base (col. 4 lines 51-56).

Regarding claim 11, Stewart discloses a plurality of linear slides, each of the linear slides interconnected between one of the second plurality of camming elements and the surface of the base (col. 4 lines 47-49).

Regarding claim 17, Stewart discloses an X-axis frame operative to move along the X-axis, a Y-axis frame operative to move along the Y-axis, and a Z-axis frame operative to move along the Z-axis (col. 3 lines 15-17, lines 38-40). The other limitations of claim 17 are repeated from claim 1 and are rejected for the same reasons mentioned above.

Regarding claim 18, Stewart discloses the use of linear actuators for the X and Y-axis frames in their respective directions (col. 3 line 51). Stewart further discloses a plate (70) attached to the Z-axis frame (22) movable by a linear actuator (76); therefore the Z-axis frame is inherently movable by a linear actuator.

Regarding claim 19, Stewart discloses each of the first plurality of camming elements is rigidly connected to the surface of the carrier plate flowing assembly of the apparatus (Fig. 2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart in view of Kemeny (US 6,517,060).

Stewart teaches the invention as claimed but lacks reference to the use of ball-in-cone mounts. Kemeny teaches the use of ball-in-cone mounts (2690) to isolate the vibration along a specific axis (col. 9 lines 1-8). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the ball-in-cone mount taught by Kemeny as the Stewart mount for the purpose of isolating vibrations in the apparatus in order to attain a more precise and accurate image from the camming elements. One would have been motivated to look at the Kemeny reference because vibrations can cause serious problems in microscopy especially at high magnifications and the Kemeny reference has a teaching on a way to isolate the vibrations, which would reduce their effect on the data collected during microscopic observation.

*Allowable Subject Matter*

Claims 12-16 and 20 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest the use of a carrier plate with spherical mounts attached to the underside of the carrier plate to be received by cone-shaped receptacles of the plurality of first camming elements.

*Response to Arguments*

Applicant's arguments, see Amendment A, filed September 10, 2003, with respect to claims 4-5 and 10-16 have been fully considered and are persuasive. The 35 U.S.C. 112 rejection of claims 4-5 and 10-16 have been withdrawn.

Applicant's arguments filed September 10, 2003 have been fully considered but they are not persuasive.

On page 8 of Amendment A, applicant argues that the spring elements 60 and 62 of Stewart do not teach the semi-kinematic mounts because there is no relationship to the springs mounting the camming elements. Stewart teaches the spring elements 60 and 62 do have a relationship to mounting the camming elements (col. 4 lines 5-10). Stewart teaches the spring elements connected to the X-axis frame and the Y-axis frame, therefore the springs are used as mounts to connect one frame to the other.

On pages 9-10 of Amendment A, applicant argues that Kemeny's ball-in-cone does not serve the same function as the ball-in-cone of the current invention. Even if the Kemeny ball-in-cone does not serve the same function Kemeny teaches the claimed structure of the device as disclosed by the claim language. Any structure that includes the elements in the claim language would inherently be able to perform and claimed function in the claim language, therefore the rejection is viewed as proper.



*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 703-305-7917. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JLP

A handwritten signature, possibly reading "JP", is written below the typed name "JLP".